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XVII. Observations respecting several British Species of Hieracium.

By James Edward Smith, M.D. F.R.S. P.L.S.

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Read January 19, and February 2, 1808.

If it be incumbent on the more experienced cultivators of Natural History to correct the errors of their predecessors or contemporaries, when they can do it with certainty; it is more especially the duty of every man to correct his own, whenever they become manifest to him, either by his own deliberate subsequent inquiries, or the remarks of other persons. Nor is he exempted from this duty, unless such remarks originate in sinister motives, and are in themselves manifestly false or totally contemptible.

Several species of *Hieracium* generally presumed to be natives of Britain are involved in great doubt, and there are others concerning which the best English botanists are not sufficiently informed to give them as yet a place in their Floras. Of the former I shall now principally speak, taking them in their proper order.

The two first which present themselves in this light are

HIERACIUM DUBIUM and AURICULA.

Both these are allowed a place in the Flora Britannica on the authority of Hudson alone, for I never heard of any other person who had gathered them in Britain, nor of any who had even seen a native specimen of either. I have examined the neighbourhood

bourhood of the places mentioned in the Flora Anglica, and so I believe have many other botanists, without finding any thing which could be referred to these species. I was therefore obliged to content myself with avowedly copying Hudson, subjoining whatever I could ascertain as illustrative of these species; and in doing this I have been thought by a learned friend to have taken the one for the other. From this supposed error I now wish to exculpate myself;—at the same time the following observations may clear up the history of these plants, hitherto almost equally obscure to the botanists of every country in Europe.

It is necessary to premise that these two species are as distinct as possible from each other. What I understand as *H. dubium* is strikingly related to *Pilosella*, from which it differs chiefly in having more than one flower, generally 3 or 4, on a stalk, and hence probably obtained the name of *dubium*. Its leaves are short, obovate, blunt, much fringed at the base; its flowers lemon-coloured both above and below; its calyx woolly, sprinkled with scattered, very short, black hairs. This is *H. Auricula* of *Fl. Dan. t.* 1111.

My H. Auricula, the dubium of Fl. Dan. t. 1044, is generally a taller and larger plant, with fewer and smaller scyons from the root, longer and perfectly acute leaves, which are less copiously and regularly fringed; its flowers smaller, more numerous, of the full yellow or orange-colour usual in the genus; the calyx clothed with very black long dense hairs.

I now proceed to a chronological history of each.

HIERACIUM DUBIUM is first mentioned by Linnæus in the first edition of his Flora Suecica, No. 634, under the specific character of "foliis integris ovato-oblongis, stolone repente, scapo nudo multifloro." In the first edition of Species Plantarum it occurs under the same definition, except the advantageous alteration

of stolonibus for stolone, and the addition of its trivial name dubium, such names having been first used by Linnæus in the last-mentioned work. Now this definition accords well with H. dubium of Fl. Brit., (the H. Auricula of Fl. Dan.) whose leaves are obovate as in H. Pilosella, and almost, if not perfectly, entire, that is, free from teeth or serratures. At this time Linnæus had not contrived the term obovate, neither had he confined the words folia integra to undivided leaves, without respect to their margin. Four synonyms are subjoined in the Flora Suecica, which I shall now examine.

- 1. Hieracium foliis virentibus pilosis ovato-lanceolatis, scapo simplici multifloro. Haller Helv. (1st edition), 743. This author mentions the leaves being "ciliated, as it were, at their footstalk (or base), and that the flowers are sulphur-coloured." He quotes Tabernæmontanus's Pilosella major prima, Ic. 196, and the synonym of Vaillant hereafter mentioned, besides others, all which circumstances leave no doubt of his plant being my dubium. This plant of Haller is the No. 53 of his 2d edition and of his Nomenclator, and what I have as such from Reynier and Davall is my dubium; but I must not conceal that Linnæus has written "Pilosella Auricula" in the margin of his copy of Haller's 1st edition.
- 2. Hieracium piloselloides vulgare. Vaillant Mem. de l'Acad. des Sciences, for 1721, species 1. This is said in his Botanicon Parisiense, 101, to have its flowers lemon-coloured on both sides, and sometimes 4 or 5 on a stalk. No other decisive information is to be obtained from this author. In the German edition of his Memoire, which is the only one now within my reach, Linnæus has written "Hieracium dubium" in the margin, so that his opinion here exactly neutralizes the note in his Haller, and

we can only by other authorities judge between the two, and these accord with his note in Vaillant.

- 3. Dens leonis, qui Pilosella folio minùs villoso. Tourn. Inst. 469. Against this Linnæus has written, in his own copy, H. dubium, and the hand-writing, as well as the colour of the ink, agrees with names written in his herbarium when the Species Plantarum was first published. From Tournefort's work nothing is even to be guessed but by means of his synonyms. He quotes Bauhin's Pinax, hereafter mentioned, also Pilosella major of Camerarius's Epitome, 709, drawn with one large flower on each stalk; and Pilosella minor, folio angustiore, minùs piloso, repens, J. Bauh. Hist. v. 2. 1040, which has long lanceolate sharp leaves, many small flowers on a stalk, and appears to be either my H. Auricula, or H. cymosum; but the description throws no light upon the subject, and perhaps does not belong to the figure.
- 4. Pilosella major repens minùs hirsuta. Bauh. Pin. 262. Linnæus has likewise written H. dubium here in his copy of the Pinax. Bauhin quotes the Pilosella major of Camer. Epit. and also Lactucella sylvestris repens of the same author, in his Hortus, 82, where is to be found a description agreeing with my H. dubium much better than with Auricula.

In the first edition of Sp. Pl. Linnæus quotes no synonyms but this of Bauhin, and his own Fl. Suec. just mentioned; except Dalibard, from whom nothing is here to be learned, and Sauvages, who merely mentions that the leaves of his plant are lanceolato-ovalia; but this accords with my H. dubium and not with Auricula: it therefore establishes the propriety of his synonym.

In the second edition of Fl. Suecica, which comes next in chronological order, H. dubium appears with its specific name, but

but its original character is unchanged, nor is there any alteration in the synonyms, except that Tournefort's is omitted, and a reference to the Sp. Plant. introduced. There is however the following observation.

"Rarissimè et passim occurrit, sequenti major, fortè hybrida vet alia qualiscunque varietas, omnibus partibus major, nec repens."

This note is very puzzling, as contradicting the specific character, and I conceive it alludes not to the plant in its usual state, but to a supposed variety, being to be understood as follows.

"It very rarely here and there occurs of a larger size than the following" (which is what I take for Auricula) "and is perhaps a mule or some other kind of variety, larger in all its parts, and not creeping."

Now this agrees with *H. ambiguum* of *Ehrhart's Herb.* 108, gathered by him at Upsal, and which is really the *cymosum* of Linnæus, though not mentioned as such in the *Fl. Suec.* This species is indeed larger than my *Auricula*, though otherwise resembling it, and rarely throws out any creeping scyons.

I shall conclude my evidences of *H. dubium*, where in most cases I should have begun, with a reference to the Linnæan herbarium. There we find one specimen only of the plant which I take for such, marked in ink "No. 6. dubium?" (with a sign of doubt) without any place of growth, or any pencil mark; which last is found on most of the authentic specimens that Linnæus had before him when he wrote the 1st edition of Sp. Plant. being preparatory to his final distribution of them. The No. 6 refers to that work, but his own copy of it is not marked with a reference to his herbarium, as if he had had an authentic specimen there.

There is no alteration nor addition respecting this species in the

the 2d edition of Sp. Plant. except a reference to Gouan, whose plant is that of Sauvages. In the interleaved copy of this 2d edition I find the following note. "Caulis hirtus. Folia hirta, prasertim subtùs." 'This is printed in the Syst. Veg. but throws no light upon the subject in dispute. With it is a mutilated extract, written with a trembling hand when Linnæus was very infirm, from Scholler's Flora Barbiensis, which shows how anxious he was to the last for any new light respecting this doubtful plant. The original passage in Scholler is much to our purpose, and runs thus.

"Folia obtusa, pilis rarioribus adspersa. Caulis parùm hirsutus, uno alterove foliolo donatus; flores 2 aut 3 in cacumine ferens." This suits what I understand to be H. dubium, but does not accord with H. Auricula. The latter is as characteristically described by Scholler thus. "Folia acuta. Caulis et calyces nigris setis adspersi. Folia pilis longis hispida." So that this author understood the two species as I do, and Linnæus by copying him as above, surely sanctions his opinion. For this reason alone I cite him, for I could produce abundance of secondary authorities on my side, but my object is to ascertain the opinion of Linnæus.

HIERACIUM AURICULA of Linnæus is first mentioned by him in his Fl. Lapponica, n. 282, and afterwards in the 1st edition of Fl. Suec. n. 635, but of course, without the trivial name, which first appears in Sp. Pl. ed. 1. He speaks of it as common in the grassy wilds of Lapland, and quotes Linders and Frankenius, two Swedish writers, who only serve to prove the plant he meant a well-known native of Sweden. The former terms it Auricula muris angustifolia minor. These authors are however not quoted in the Fl. Suec. I proceed to examine the synonyms and remarks

marks in the latter work, according to the plan I have followed respecting the former species.

The specific character runs thus. "Foliis integerrimis lanceolatis, scapo nudo multifloro." This is continued in the 2d edition of Fl. Suec. and the first of Sp. Pl., the words "stolonibus reptantibus" being added in the 2d edition of the latter. This character accords with my H. Auricula, the word lanceolatis being precisely applicable to that and not to my dubium.

- 1. Hieracium foliis integerrimis, caule repente, scapo nudo multifloro. Hort. Cliff. 388. n. 8. Here we find a description in which
 the leaves are said to be "lanceolate, erect, green, scarcely so
 long as the finger—flowers several—calyx encompassed with
 black hairs—radical scyons slender, furnished with very small
 leaves." These characters precisely indicate my Auricula, and
 not the dubium.
- 2. H. piloselloides florentinum vulgari simile. Vaillant Mem. de l'Acad. des Sciences for 1721, species 2. This is an erroneous quotation, belonging to the H. florentinum of Allioni, Fl. Ped. v. 1. 213, Haller's No. 54, a plant unknown to Linnæus, on which I need not at present dwell, as it is much more remote from my dubium than from the species at present under consideration.
- 3. H. pilosellæ folio erectum minus. Tourn. Inst. 471. Besides Bauhin's Pinax, hereafter mentioned, Tournefort quotes only the Pilosella major prima of Tabernæmontanus, which I have already mentioned as quoted by Haller for H. dubium, in my opinion justly. The only way therefore of judging concerning this synonym of Tournefort is by the species along with which he has arranged it, and these are H. præmorsum, cymosum, aurantiacum, &c., all closely allied to my Auricula, and not to dubium, which latter

latter Tournefort places next to Pilosella, in his genus Dens Leonis, as above mentioned.

- 4. Pilosella major erecta altera. Bauh. Pin. 262. This author quotes the synonym of Tabernæmontanus, P. major prima, and P. major latifolia of Gerarde. Now the figure of the latter is the very same wooden cut as the P. major altera of Tabernæmontanus, Ic. 197, which latter I therefore presume Bauhin meant to quote, instead of the prima, and that this error of his misled Tournefort, as noticed above. This P. major altera may be Hieracium Auricula, or florentinum, or cymosum, but most assuredly not my dubium.
- 5. Pilosella repens minor, caule (erecto) pedali, polyanthes, foliis angustis oblongis. Raii. App. (Hist. Pl. v. 3), 147. The description of this author is not very precise as to our purpose, and perhaps agrees rather better with H. dubium than with Auricula, but nothing conclusive can be gathered from it.
- 6. Pilosella. Till. Ic. 14. On this figure a learned botanist of my acquaintance has chiefly rested his opinion of the plant now under consideration being H. dubium, which the said figure is thought most to resemble. I was staggered by this, as the work of Tillands might be supposed good authority for a Swedish plant, and to represent the most common species there of the two, not so rare an one as my dubium is said to be. But I perceive with no less surprise than satisfaction that this very figure is a servile copy of the Pilosella major prima of Tabernæmontanus, and therefore in itself of no authority at all. Indeed Linnæus has omitted to refer to it in the subsequent edition of his Flora.

To these synonyms a remark is subjoined in both editions of the Fl. Suec. as follows.

"Folia lanceolata, acuta. Caules et calyces nigris setis adspersi; folia hispida minimis pilis. In hortum academicum translata 1742, caulem bipedalem 1743, et flores quasi in umbellam, longis pedunculis innixos, producebat." All this suits my Auricula.

I now proceed to the evidence of the Linnæan herbarium, which is much more conclusive here than in the former instance.

In that collection is a specimen of what I understand as H. Auricula, marked as such by Linnæus himself, and agreeing with all that he says about it. This is pinned to another, numbered 7, and both together were unquestionably considered by Linnæus, when he wrote his first edition of Sp. Pl., as H. Auricula, to which the number refers in that work, and his copy of the book is marked, indicating that he had the plant. But when he wrote his 2d edition of Sp. Pl., he distinguished between these two specimens, elaborately describing the latter by the name of cymosum, and leaving the other with its original denomination of Auricula. I conceive this decides the question between H. dubium and Auricula, and that the 2 species are mistaken for each other in the Fl. Danica. How far the cymosum, Ehrhart's ambiguum, may be really distinct from the Auricula is another question. It appears to me only a larger plant. The cymosum of most authors appears to be the florentinum of Allioni. It may perhaps be not uninteresting to give here the opinion of my late friend Mr. Davall, whose accuracy and penetration I have daily opportunities of proving, concerning these and the neighbouring species in Haller's Historia and Nomenclator.

His No. 50 is, of course, H. aurantiacum.

51 præmorsum.

51* cymosum.

52 Auricula.

53 dubium.

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His No. 54 florentinum, Allioni.

55 Pilosella.

I find the late Mr. Dick sent No. 52 to Jacquin, as *H. dubium*, and hence misled the latter to consider 53 as *Auricula*, which appears by specimens from his herbarium, given me by Sir Joseph Banks. But indeed Jacquin seems to have confounded the two. The eminent German botanists Roth, Host, and Willdenow appear to have understood these plants as I do. I trust there cannot in future be any confusion between them, and my anxiety to prevent this must excuse my prolixity on so dry a subject.

HIERACIUM MURORUM.

It has been suggested by Mr. Edward Forster, F.L.S., that the real H. murorum of Linnæus is the β of Fl. Brit. The following particulars will confirm this suggestion, and at the same time account for, if not excuse, my mistake respecting this point.

Hieracium No. 637, Fl. Suec. ed. 1, caule ramoso, foliis radicalibus ovatis dentatis, caulino minore, the first authority for this Linnæan species, is certainly my variety β , the H. macrocaulon hirsutum, folio rotundiore, of Ray, and the Round Hawklung of Petiver, t. 13. f. 2.—Pulmonaria gallica sive aurea, Tabernæmont. Ic. 194, is a most excellent representation of it. Pilosella major quibusdam, aliis Pulmonaria flore luteo, of J. Bauhin's Historia, v. 2. 1033, must be the same, his figure being a copy of that of Tabernæmontanus. He gives as its synonym his brother's Hieracium murorum, folio pilosissimo, Pin. 129.

This Swedish plant is preserved in the Linnæan herbarium, marked murorum, and numbered 15 in reference to Sp. Pl. ed. 1. I have received it from Mr. E. Forster, who observes that it is known by having only one, rather small, cauline leaf, either in

No. 8,

a wild or cultivated state. That it is rather a rare English plant, he being not sure of having gathered it wild except "on Chedder cliffs, Somersetshire; on Pennard castle, Glamorganshire; and on rocks at Downton near Ludlow. It grows on an old wall near Enfield palace, but may have been naturalized there, as that was the site of Uvedale's garden." Besides the solitary cauline leaf, this plant is remarkable for its numerous, broad, rounded or heart-shaped radical leaves, which are always more or less wavy in the margin, especially towards their base, where they are often deeply toothed, and their teeth are singularly radiated or divaricated, the first pair mostly pointing towards the root. The Linnæan specimen shows this strongly; Mr. E. Forster's less remarkably. This accounts for Linnæus's having quoted the Pulmonaria gallica fæmina of Tabernæmontanus, 1c. 195, (instead of the figure above mentioned,) as it expresses this character very strikingly, as does J. Bauhin's Pilosellæ majoris, sive Pulmonariæ luteæ species magis laciniata, Hist. v. 2. 1034. I have indeed no doubt that these two figures of Tabernæmontanus, and consequently those in J. Bauhin, represent mere varieties of one species.

But my murorum α is also preserved in the Linnæan herbarium, pinned to the former, with a corresponding number. Linnæus has written on its back that "Gmelin affirms this to be the H. murorum folio pilosissimo of C. Bauhin," and it is evidently that "very hairy variety" which Linnæus mentions, how correctly I know not, as never found in Sweden. This specimen of Gmelin probably led him, in the 2d edition of Sp. Pl., to quote H. macrocaulon hirsutum folio rotundiore, Raii Syn. 169, as a third variety of his murorum; but in copying Ray he has written longiore for rotundiore, the former word agreeing with his specimen best. His own copy of the Synopsis shows he meant No. 8 of that work, not No. 9, and I believe he is correct as to this

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No. 8, except that it is his identical murorum, and not a variety. Ray, like Gmelin, has misapplied the above synonym of Bauhin to my murorum α, his No. 6, a common plant, especially on walls, having lanceolate rather than ovate leaves, several of them growing on the stem, their teeth all pointing forward, and not divaricated. Ray further errs in his quotations of J. Bauhin and Gerarde for the same plant, which is well figured by Petiver, t. 13, f. 4, and given by Ehrhart in his Herbæ Exsiccatæ, No. 147, from Hanover, as the real H. murorum of Linnæus. I shall speak of it presently as a distinct species, by the name of sylvaticum. Linnæus misled me to quote the Corchorus of Dalechamp, which is the true murorum, for this species, or supposed variety. It will readily appear how far he combined with Ray, and Gmelin to induce me to consider my murorum a as the H. murorum folio pilosissimo of Bauhin, and therefore as his own primary murorum. My attention having been recalled to the subject by Mr. E. Forster has not only convinced me of this. error, but also enabled me now first to comprehend the two varieties of the real Linnæan murorum, whose synonyms I venture to arrange as follows, under the annexed specific character.

H. murorum, caule ramoso, foliis cordato-ovatis repandis basi, præcipuè radiato-dentatis: caulino solitario.

a. H. murorum a. Sp. Pl. ed. 1. 802. ed. 2. 1128. Fl. Suec. ed. 1. n. 637; ed. 2. n. 701. Fl. Lapp. n. 284. Gmel. Sib. v. 2. 25. n. 22.

H. murorum 3. Fl. Brit. 830.

H. murorum folio pilosissimo. Bauh. Pin. 129, decided by his synonyms.

H. macrocaulon hirsutum, folio rotundiore. Raii Syn. ed. 2.74. ed. 3. 169.

Alsine, seu Auricula muris major. Trag. Hist. 276.

Pulmonaria

Pulmonaria gallorum, sive Auricula muris major Tragi. Dalech. Hist. 1328. also Corchorus. Ibid. 565; with the very same wooden cut, which is copied from that of Tragus.

P. gallica sive aurea. Tabernæmont. Ic. 194, opt.

P. gallica mas. Tabernæmont. Kreuterb. 504, opt.

P. gallica sive aurea latifolia. Ger. em. 304.

Pilosella major quibusdam, aliis Pulmonaria flore luteo. Bauh. Hist. v. 2. 1033; copied from the last.

Round Hawklung. Petiv. H. Brit. t. 13. f. 2.

Pulmonaria gallorum rotundifolia lævior. Barrel. Ic. t. 342; seems merely a smoother state of this variety.

β. H. murorum β. Sp. Pl. ed. 1. 803. ed. 2. 1128. Fl. Suec. ed. 2. No. 701, β. Herb. Linn.

H. murorum laciniatum minus pilosum. Bauh. Pin. 129.

Pulmonaria gallica fæmina. Tabernæmont. Ic. 195. Kreuterb. 504.

Pilosellæ majoris, sive Pulmonariæ luteæ species magis laciniata. Bauh. Hist. v. 2. 1034; copied from the last.

I am much inclined to consider Ray's Hieracium leptocaulon hirsutum folio longiore as belonging to this variety; but on that subject more will be said under H. sylvaticum β .

HIERACIUM SYLVATICUM.

Before I proceed to define what must in future pass under this name, I cannot but give the truly curious history of the Hieracium Pulmonaria dictum angustifolium of Ray, on which this species originally depended for a place among British plants.

Johnson in Ger. em. 304 describes and figures a Pulmonaria gallica seu aurea angustifolia, found "on a hill at Sidmonton not far from Newbery, in an old Roman camp, close by the decuman port," which he tells us Lobel and C. Bauhin confound with the H. murorum folio pilosissimo of the latter. This is clearly true

with respect to Bauhin; and Lobel's account, such as it is, of this plant, in his Adversaria 253, should seem to belong to what Bauhin intended, the H. murorum of Linnæus; while the figure in Lobel's Observationes 317, and Icones 587, is a very different thing, being the very same cut as Johnson uses in Ger. em. 304. How Lobel came by this cut I know not, but it unquestionably belongs to Johnson's description. Ray adopts this plant entirely on Johnson's authority, Syn. ed. 2. 74; and Dillenius does the same, ed. 3. 168, only adding a Welch station for it, on the authority of Dr. Richardson. What the plant of Richardson may be, matters little. My friend Dr. Lamb, F.L.S., has helped me to decide upon the plant of Johnson, by means of a specimen gathered about 10 yards to the south of the abovesaid decuman port, and I have perceived with unfeigned surprise, that it is no other than a variety of Cineraria integrifolia! The specimen is more dilated and less woolly than usual, and so precisely accords with the figure and description in Ger. em. that the only wonder is how any person could take the original plant for a Hieracium. Peace be to the manes of Johnson, Lobel, and Ray, while they settle among themselves their appropriate shares of the error!-I believe no other British genus can afford an example of two such mistakes in Ray as this and what I have noticed concerning H. murorum. The synonyms of Ray and Ger. em. as well as Petiver's t. 13. f. 5, a copy of the latter, are therefore to be removed from H. sylvaticum in the Fl. Brit. to designate a variety of Cineraria integrifolia.

Now whether Dr. Withering found this Cineraria on Dudley castle hill, or whether the plant of Richardson and Dillenius be the same or not, I have no means of determining. By Withering's reference to Allioni's tab. 28. f. 1, which that author confounds under Hieracium murorum, and to the H. sylvaticum of Gouan, (whose description well agrees with H. murorum a Fl.

Brit., though his synonyms are extremely confused,) I am led to consider Withering's plant as Ray's, not Bauhin's, H. murorum folio pilosissimo, and to retain for it the name of sylvaticum; only remarking that it is not the Linnæan variety of the true murorum marked sylvaticum in the margin of Sp. Pl. I decline choosing a new name for it, because this has been adopted amongst us, and because it is difficult to find a more expressive one, not preoccupied in some one or other of the authors who have lent their hands to elucidate or to embroil the species of Hieracium. But while I consider this as the sylvaticum of Withering, I must remark that it is also confounded in the otherwise excellent description of H. murorum given in his work from Mr. Woodward, though it seems Dr. Withering himself had correct ideas of the murorum.

My own account of H. sylvaticum Fl. Brit. being professedly taken from this writer, for I never till now could ascertain any thing certain about it, I subjoin the following more correct character and synonyms of what is now to go by this name, and which is a very frequent species in England.

H. sylvaticum, caule ramoso, foliis ovato-lanceolatis basi præcipuè antrorsum dentatis: caulinis pluribus.

a. H. sylvaticum. Gouan. Obs. 56, ex descr. With. 687. Galpine 67.

H. murorum. Ehrh. Herb. 147. Allion. Ped. t. 28. f. 1. Fl. Brit. α. 830.

H. murorum folio pilosissimo. Raii Syn. ed. 2. 74. ed. 3. 168. Pulmonaria gallica tenuifolia. Tabern. Ic. 195. Kreuterb. 505. Pilosellæ majoris, sive Pulmonariæ luteæ species angustifolia. Bauh. Hist. v. 2. 1034.

French Hawklung. Petiv. H. Brit: t. 13. f. 4.

B. Hieracium leptocaulon hirsutum, folio longiore. Raii Syn. ed. 2. 74. ed. 3. 169?

H. sylvaticum. Fl. Dan. t. 1113.

H. murorum y. Fl. Brit. 830.

H. pulmonarioides. Villars Dauph. v. 3. 183. t. 34?

H. glaucum pilosum, foliis parum dentatis. Dill. Elth. 180.

Some uncertainty arises with respect to the synonym of Ray for this variety, from his saying that "as far as he remembers, there were no leaves on the stem of his plant, but all grew from the root." This, if true, agrees with the genuine H. murorum, and makes me more than half inclined to remove the said synonym to the cut-leaved variety (B) of H. murorum; yet the words folio longiore certainly agree best with the species before us, and such is Mr. E. Forster's opinion. We must look to some Westmoreland botanist to decide this question. Petiver's authority may not be thought of much weight, but he gives as a representation of this plant of Ray a copy of the Pulmonaria gallica fæmina of Tabernæmontanus, which I have already cited under H. murorum B. The description of Ray accords perfectly with this, except that he has not noticed the remarkable incisions in the leaves; and on the other hand the slenderness of the stem does not agree with the plant now under consideration, whose stem is stout and leafy.

This variety of *H. sylvaticum* was brought from Westmoreland to Norwich in the year 1781, by the late Mr. Crowe, and having been planted in his garden, has since naturalized itself in the neighbourhood, in my own garden among others. Its leaves are elegantly speckled with black, and of a darker green than the common kind. The whole plant is also larger and stronger, with very numerous flowers, but I can find no specific mark of distinction,

stinction, though it is a permanent variety, unaltered when propagated by seed.

A specimen from Villars himself of his H. pulmonarioides accords in every particular with this variety, except that it is not above half so tall, and its calyx and flower-stalks are rather more abundant in black prominent glandular hairs, both circumstances to be attributed probably to its being a wild specimen. I have thought it safest however to quote this excellent author with a mark of doubt. My plant has no affinity to H. amplexicaule, with which he compares his.

To this writer I am obliged for occasioning me to stumble upon the plant of Dillenius, t. 149, which Villars cites under cerinthoides, certainly without any propriety, but which I confess myself, like my predecessors, to have hitherto overlooked or left undecided in despair. Dillenius refers it, with doubt, to Ray's H. macrocaulon hirsutum folio rotundiore, which is certainly H. murorum of Linnæus as above mentioned. This plant of Dillenius, found by Richardson, cannot be referred to that species, on account of the lanceolate and decurrent form of its radical leaves, and especially the manner in which they are toothed; not to mention its more leafy stem; in all which points it agrees with sylvaticum. Yet its "glaucous leaves and pale yellow flowers" do not suit either variety of the sylvaticum. This plate of the Hortus Elthamensis is one of the very few left unmarked by Linnæus in his own copy of that work. It is surely the H. Lawsoni of Villars, of which I have a Pyrenean specimen, gathered by Mons. de St. Amans, and given me by the Rev. Mr. Kirby, seemingly authentic. Villars considers this as H. leptocaulon hirsutum folio longiore of Lawson and Ray, which we have just found so much difficulty in determining, and, if right, he has cleared up a very difficult question for us British

I must leave the matter still in doubt till we recover the plants of Lawson and Richardson, from their native places of growth in Westmoreland, an object well worthy the attention of some accurate travelling botanist, who may perhaps be rewarded by finding *H. dubium* and *Auricula* in the same tour.

HIERACIUM CERINTHOIDES.

I am enabled to add this species to the list of British Hawk-weeds, on the authority of a specimen sent in 1803 by Mr. George Don, who informs me it is by no means a scarce plant in the highlands of Scotland, growing upon rocks. Its character and synonyms are as follows:

H. cerinthoides, caule corymboso, foliis pilosis subdenticulatis: caulinis oblongis semiamplexicaulibus; radicalibus obovatis, petiolis barbatis.

H. cerinthoides. Sp. Pl. ed. 1. 803. ed. 2. 1129. Willd. Sp. Pl. v. 3. 1580. Gouan. Illustr. 58. t. 22. f. 4. Villars Dauph. v. 3. 110. t. 32.

H. pyrenaicum folio cerinthes, latifolium et angustifolium. Schola Botanica, 189. Tourn. Inst. 472.

In the 2d edition of Sp. Pl. Linnæus cites for comparison with this a plant of Haller, which is no other than H. villosum. H. cerinthoides is not known to be a Swiss plant, at least it is not among those of Haller, his No. 36, which has been taken for it, proving upon comparison to be the amplexicaule of Linnæus. I have two specimens of the cerinthoides in Mr. Davall's herbarium, but no indication of their being gathered in Switzerland. Few authors seem to have known this species, for Tournefort merely copied the two barren definitions, under which it stands in the Schola

Schola Botanica, supposed to have been published by the celebrated William Sherard. It may therefore be esteemed a curious addition to our Flora. We are also indebted to Mr. G. Don, for H. aurantiacum, as mentioned in Eng. Bot. t. 1469; and I have imperfect information, or insufficient specimens, of several more Scottish species of this difficult genus, which I hope future observations may elucidate.

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